

times in hopes of, for example, dislodging a particle stuck to the head or moving a particle located on the disk surface which has been causing the high fly write condition.

Because AGC fields 300 extend radially across the disk, they are written in a piecemeal fashion and are “stitched” together. Ideally, portions of the AGC fields 300 being stitched together are in-phase with one another (i.e., perfectly radially coherent). However, in some instances, portions of the AGC fields 300 being stitched together may be out-of-phase with one another. In a worst case situation, when portions of AGC fields 300 that are being stitched together are 180 degrees out-of-phase with one another and the center of the head 20 passes over the intersection of such portions of the AGC fields, a cancelling occurs, such that the strength of the AGC field is reduced. Thus, it may appear as though a high fly write condition exists. Furthermore, if one AGC field on a track exhibits a reduced amplitude due to radial incoherence, often other AGC fields on the same track may also exhibit a reduced amplitude. (This is termed a local media defect.)

In order to account for AGC fields which are not written in a radially coherent manner, an embodiment of the present invention makes use of a running average of amplitudes of AGC fields. Specifically, the average amplitudes of the AGC fields 200 for each zone are used as initial values. However, as the head 20 reads amplitudes of AGC fields in a particular zone, a running average is maintained.

In one embodiment, the running average may be made of X samples, where X is a predetermined number. For example, if X=4, the running average would include the averages of the last 4 amplitudes of AGC fields read by the head 20 (i.e., the 4 most current amplitudes). Thus, in step 620 of **Figure 6**, the measured amplitude of the next AGC field

would be compared to the running average. Preferably, the running average would be kept in memory.

While reference has been made to an average value of AGC fields (e.g., whether it be a running average or an average by zone) with which a comparison is made, it should be understood that, instead, a comparison may be made with a threshold value, among other things. For example, a threshold value may be calculated using the average value of AGC fields in a zone and subtracting an experimentally determined tolerance value. Other variations will readily come to mind to those skilled in the art.

While an effort has been made to describe some alternatives to the preferred embodiment, other alternatives will readily come to mind to those skilled in the art. Therefore, it should be understood that the invention may be embodied in other specific forms without departing from the spirit or central characteristics thereof. The present examples and embodiments, therefore, are to be considered in all respects as illustrative and not restrictive, and the invention is not intended to be limited to the details given herein.